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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,905	07/12/2006	**Gunter Wagner**	502901-327PUS	1616

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EXAMINER	
COMLEY, ALEXANDER BRYANT	
ART UNIT	**PAPER NUMBER**
3746	

MAIL DATE	DELIVERY MODE
10/13/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/585,905	WAGNER ET AL.	
	Examiner	Art Unit	
	ALEXANDER B. COMLEY	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 August 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 12th, 2009 has been entered.

Status of the Claims

2. Examiner acknowledges receipt of Applicant's amendments and arguments filed with the Office on July 10th, 2009 in response to Final Office Action mailed on April 17th, 2009. Per Applicant's response, only Claim 1 has been amended. All other claims remain in their previously presented form. The Examiner has carefully considered each of Applicant's amendments and/or arguments, and they will be addressed below.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. **Claims 1-7** rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5,106,277 to Tuckey directed to a Drive Connection for a Fuel Pump Rotor in view of United States Patent No. 5,121,021 to Ward directed to a Frame and Magnet Assembly for a Dynamoelectric Machine.

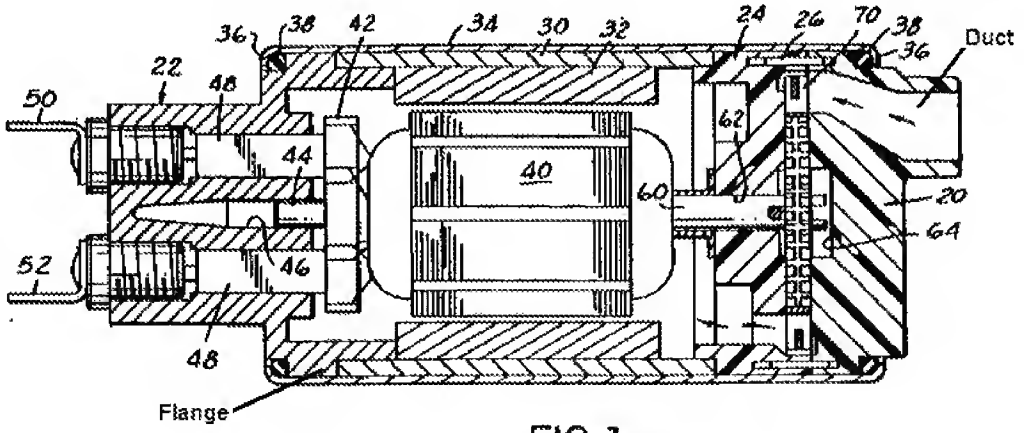

FIG. 1

In regards to Independent **Claim 1**, and with particular reference to Figure 1 shown immediately above, Tuckey discloses:

A fuel feed unit (Fig. 1) for delivering fuel, comprising: an electric motor (40); an electric motor stator ring (30); magnet shells (32) arranged inside the stator ring (30); and a motor casing (34) to accommodate the stator ring (30);

With reference to Figure 1 shown immediately above, Tuckey discloses a fuel pump for an internal combustion engine. Tuckey discloses an electric motor (40), a cylindrical flux ring (30) (i.e. stator ring), permanent magnets (32) (i.e. magnetic shells) arranged inside the cylindrical flux ring (30), and a motor casing (34) to accommodate the cylindrical flux ring (30) (See column 1, lines 50-55 and Fig. 1). The disclosure according to Tuckey differs with respect to the applicant's invention in that no specific detail is provided teaching of a one-piece body comprising the stator ring (30) and an adjoining at least one of the motor casing or the magnet shells.

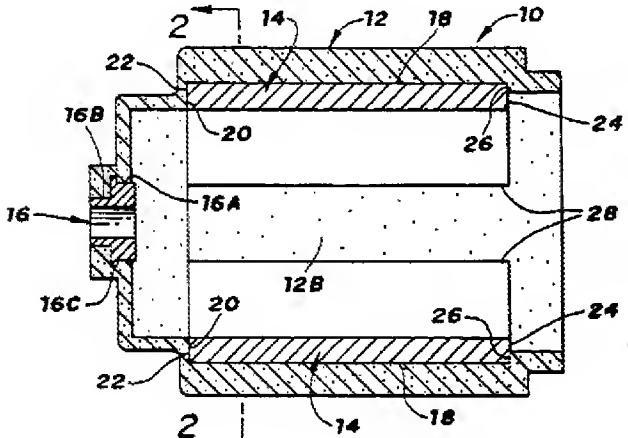

Fig. 1

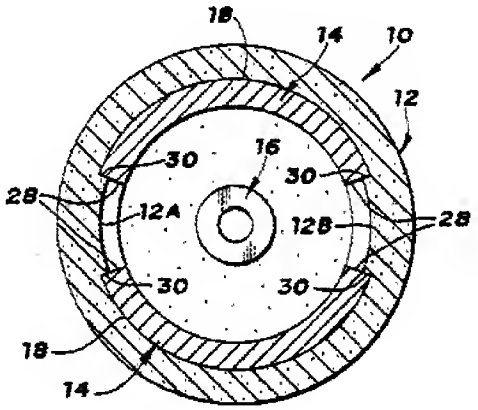

Fig. 2

However, Ward discloses the final remaining element missing from that of the primary Tuckey reference. In particular, Tuckey discloses:

Wherein the electric motor stator ring (12) and an adjoining component of at least one of the motor casing (12) and the magnet shells (14) comprise a single-piece body (12) formed as a single piece of a single material.

With particular reference to Figures 1 and 2 shown immediately above, Ward discloses a frame-and-stator assembly 12 for a dynamoelectric machine. Ward's device

is designed to simplify the assembly process by lessening the number of parts and eliminating the need for mechanical fasteners. In particular, Ward states "In the manufacture of the assembly, iron powder particles that are coated with a thermoplastic material are molded to the permanent magnets. The permanent magnets have surfaces that are interlocked to the material of the frame thereby eliminating the need for mechanical fasteners or an adhesive to secure the permanent magnets to a frame." (Abstract) Most importantly, however, is the use of a single piece body 12 made of a single material to form the casing and flux ring (i.e. stator). As shown in Figures 1 and 2 immediately above, the frame 12 is formed as a composite material made up of a blend of iron and plastic. In particular, Ward states "The assembly 10 comprises a frame 12 that carries two permanent magnets each designated as 14. Frame 12 also carries a metallic bushing type bearing 16. As will be described more specifically hereinafter, frame 12 is formed of a composite material comprised of iron powder particles that are coated with a thermoplastic material and frame 12 is formed by molding the composite material to the permanent magnets and bearing." (Col. 2, Lines 3-10) Because the composite material is composed of magnetic iron particles, the frame 12 also forms a magnetic flux ring that acts as a stator for the machine. In particular, Ward states "As has been pointed out, the composite frame material is a magnetic material and, accordingly, forms a flux path for flux developed by the permanent magnets." (Column 5, Lines 37-39) Hence, it is apparent that the stator-and-frame assembly 12 is formed as a single piece of a single same material (i.e. an iron-and-plastic blend). Therefore, to one of ordinary skill desiring a simpler fuel pump assembly,

it would have been obvious to utilize the techniques disclosed in Tuckey in combination with those seen in Ward in order to obtain such a result. Consequently, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the separate stator 30 and casing 34 of Tuckey with the single-piece assembly 12 of Ward in order to obtain predictable results; those results being a simpler fuel pump assembly that is easier and faster to manufacture.

6. Regarding dependent **Claim 2**, the Ward portion of the combination teaches the use of iron or ferrite powder particles that are embedded within a thermoplastic material. In particular, Ward states "The composite magnetic frame material is comprised of iron powder particles having a particle size in a range of about 10 to 250 microns that are coated with a thin layer of thermoplastic material. The composite material is molded to the permanent magnet. It, accordingly, is another object of this invention to provide a method of manufacturing a frame and permanent magnet assembly where a composite material of the type described is molded to the permanent magnet." (Column 1, Lines 24-32) With respect to dependent **Claim 3**, Tuckey in view of Ward discloses the claimed invention except for the specific use of polyphenyl sulfide material for the plastic. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilizes such a material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a mater of obvious design choice. *In re Leshin, 125 USPQ 416.* In regards to dependent **Claim 4**, it can be seen in Figure 1 above that

the frame 12 (i.e. casing) and stator ring for a single piece body (See Claim 1 above). With respect to dependent **Claim 5**, the Tuckey portion of the combination discloses the use of a flange portion for the connection of a fuel line. As illustrated within Fig. 1 of Tuckey, the body (34) comprising the stator ring (8) has a flange portion for joining a connection piece (22) intended for the connection of a fuel line (50, 52) (See Fig.1). In regards to dependent **Claim 6**, Tuckey further discloses a bearing (60) for the rotor which can be seen in Fig.1 as being provided in an analogous manner as depicted by the applicant. Finally, regarding dependent **Claim 7**, it can be seen in Fig.1 according to Tuckey that the cylindrical flux ring (30) or stator ring is joined in one piece to a component (20) having a duct. Therefore, to one of ordinary skill desiring a simpler fuel pump assembly, it would have been obvious to utilize the techniques disclosed in Tuckey in combination with those seen in Ward in order to obtain such a result. Consequently, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the separate components of Tuckey with the integral assembly of Ward in order to obtain predictable results; those results being a much simpler fuel pump that limits the number of parts necessary for assembly.

Response to Arguments

7. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER B. COMLEY whose telephone number is (571)270-3772. The examiner can normally be reached on M-F 7:30am - 5:00am EST (Alternate Fridays Off). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon C. Kramer can be reached on (571)-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alexander B Comley/
Examiner, Art Unit 3746

/Charles G Freay/
Primary Examiner, Art Unit 3746

ABC